Application No: Not yet assigned

Atty Dkt No: PP17201.003 (35784/240412)

Solubility of IFN-Beta-1b in Sodium Chloride Solutions

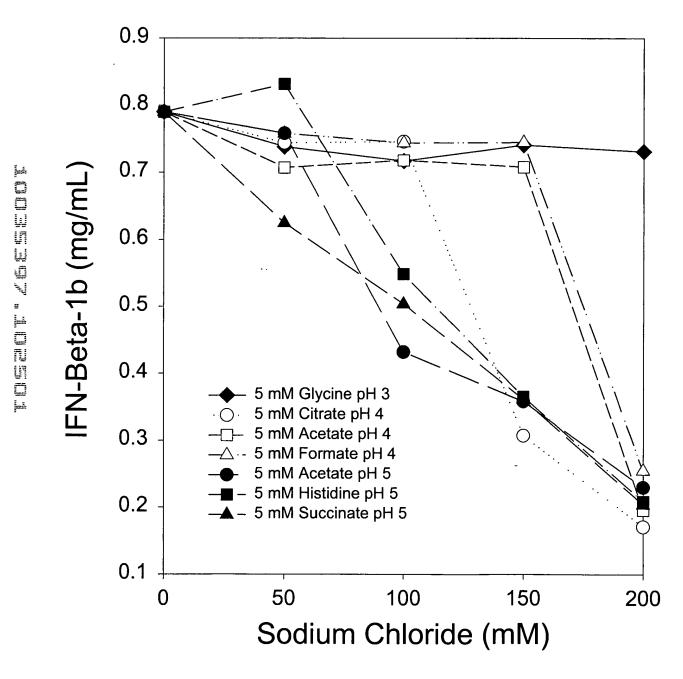


Figure 1

IFN-Beta-1b Solubility in Low-Ionic-Strength Formulations

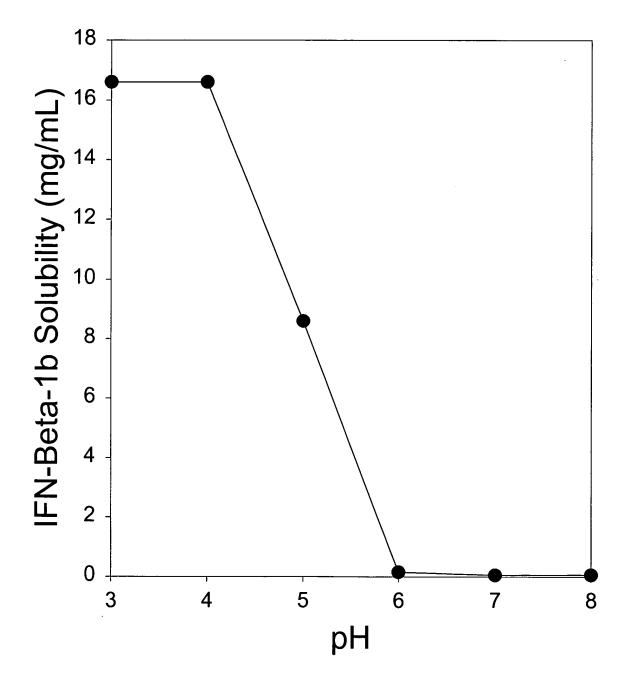


Figure 2

Application No: Not yet assigned

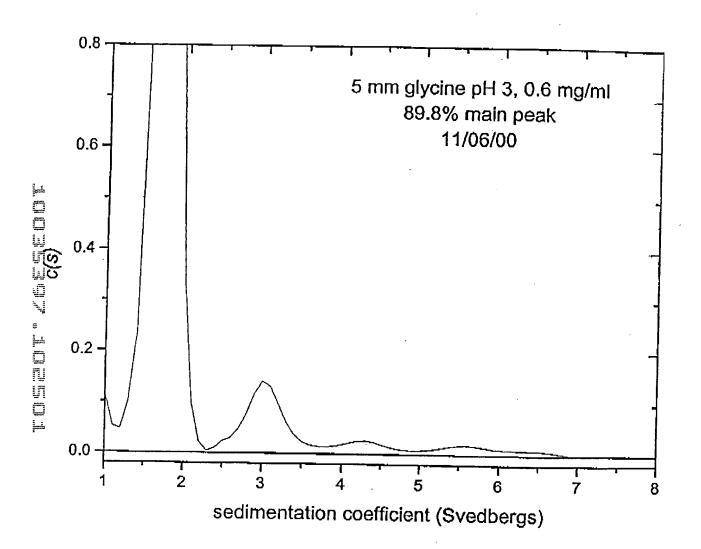


Figure 3

Application No: Not yet assigned

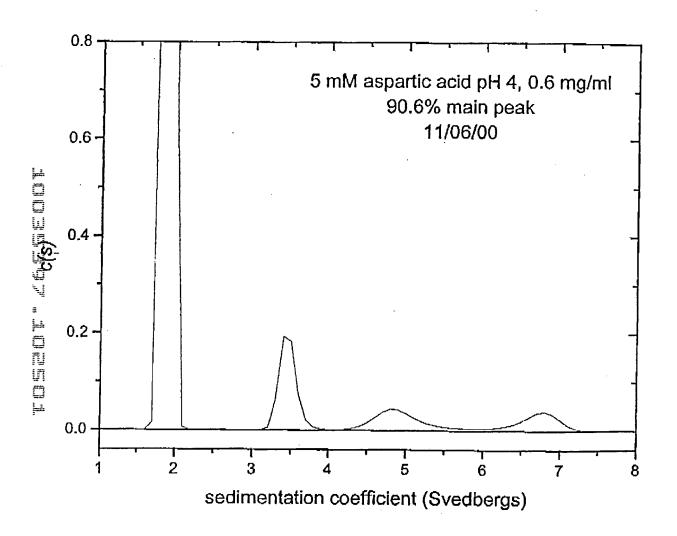


Figure 4

Application No: Not yet assigned

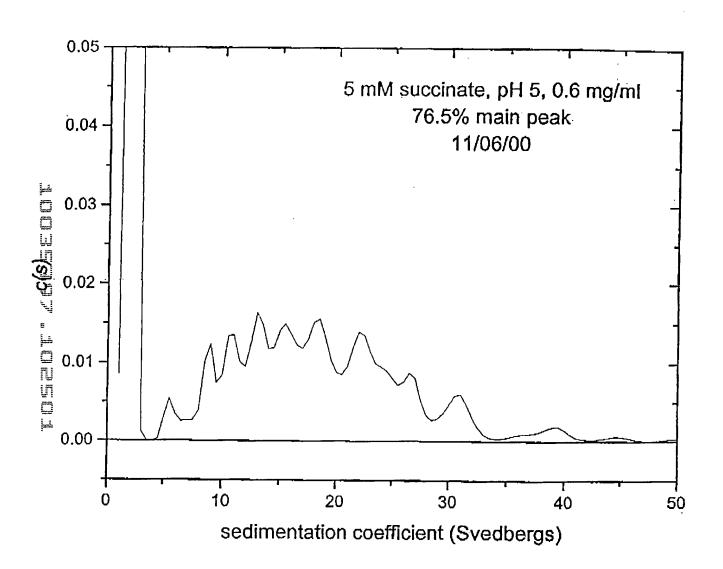


Figure 5

Title: FREE FORMULATIONS OF INTERFERON-BE'A. Inventor(s): Bret A. Shirley, Minna Choe, Melanie Teller, Susan Babuka Application No: Not yet assigned

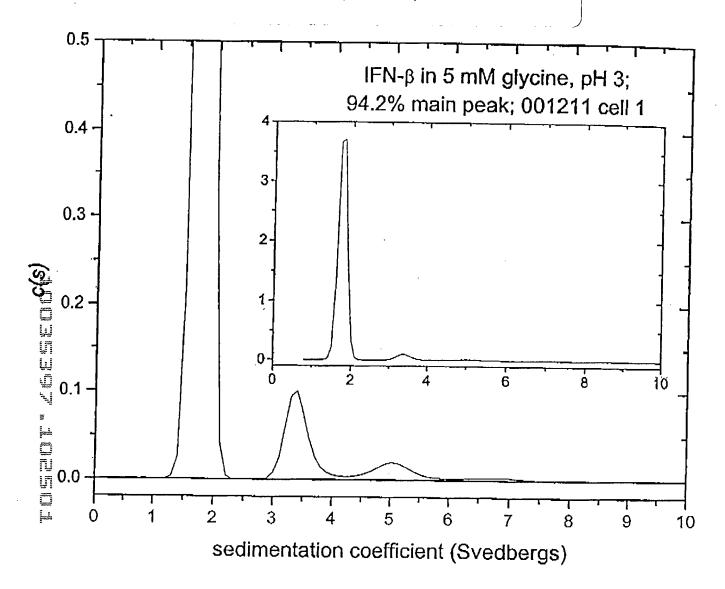


Figure 6

Application No: Not yet assigned

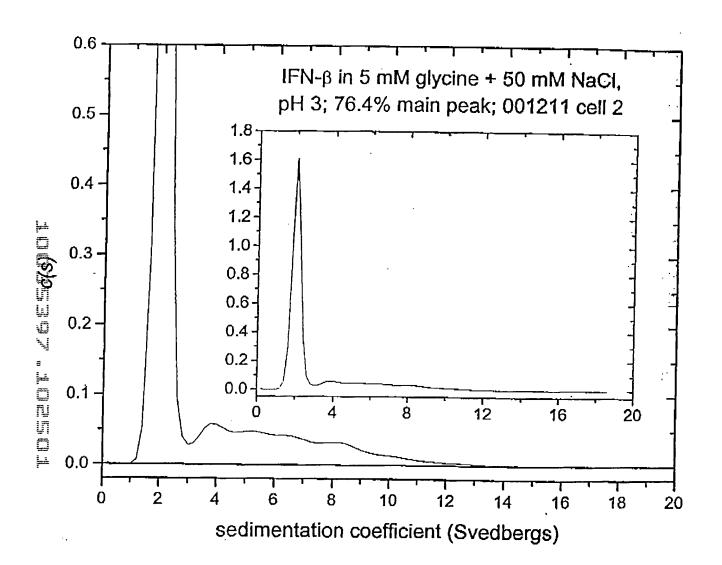


Figure 7

Application No: Not yet assigned

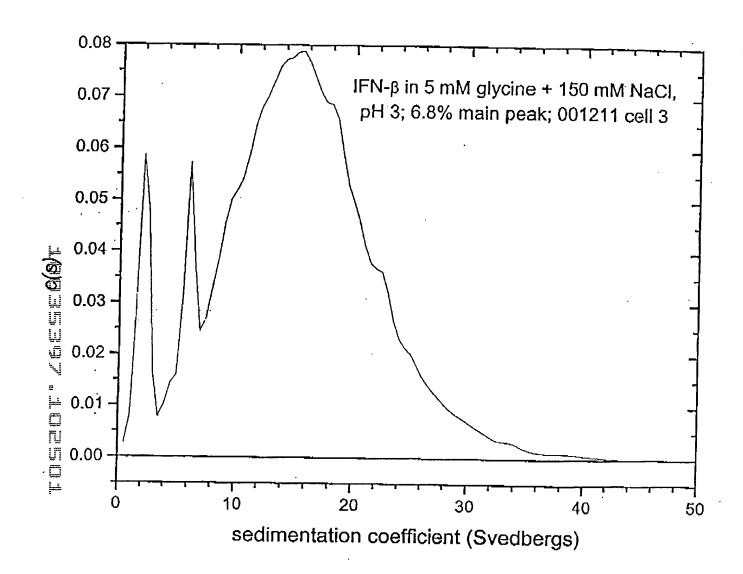


Figure 8

Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA Inventor(s): Bret A. Shirley, Minna Choe, Melanie Teller, Susan Babuka Application No: Not yet assigned

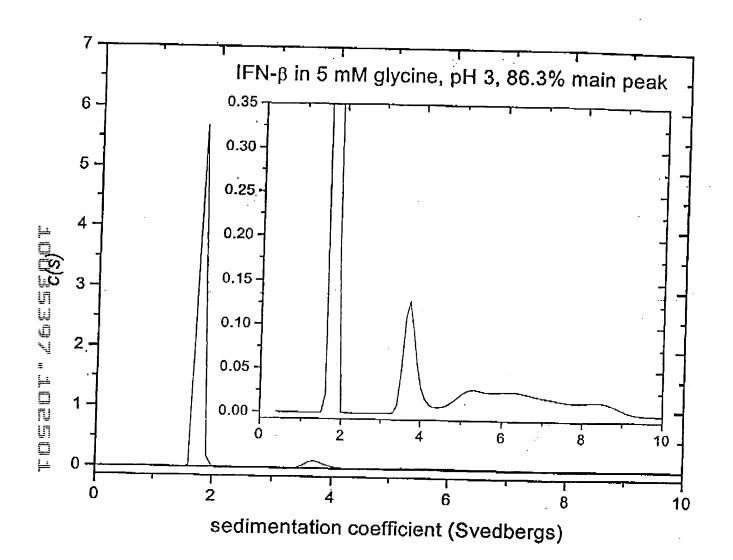


Figure 9

Application No: Not yet assigned

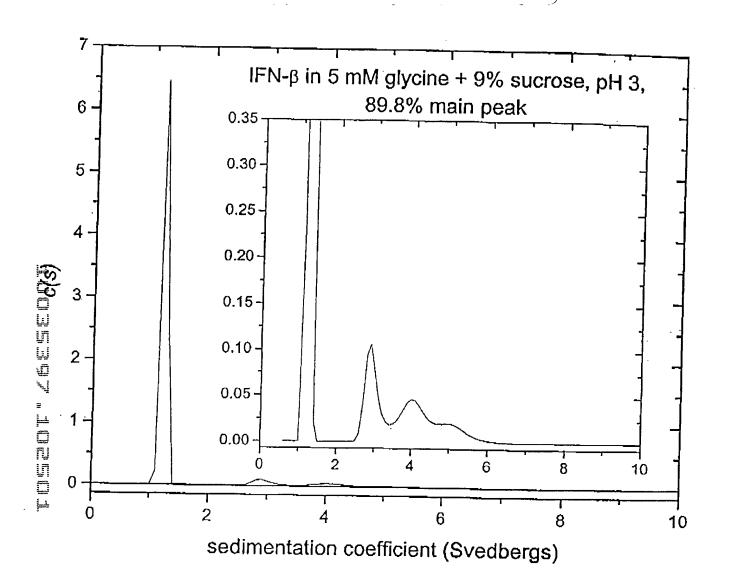


Figure 10

Application No: Not yet assigned

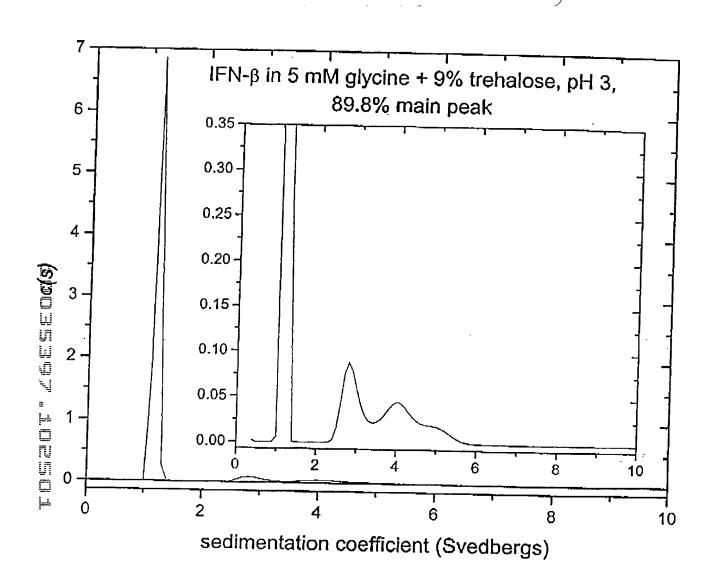
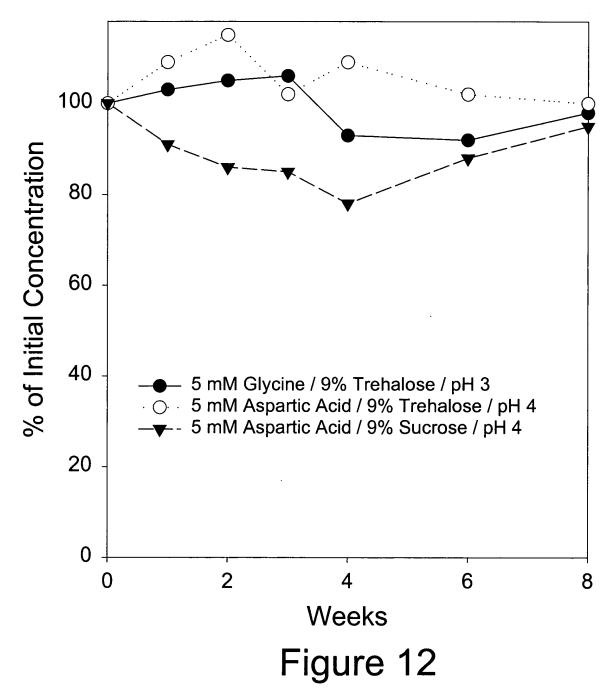


Figure 11

Eitle: HSA-FREE FORMULATIONS OF INTERFER (SETA entor(s): Bret A. Shirley, Minna Choe, Melanie Telescape usan Babuka Application No: Not yet assigned Atty Dkt No: PP17201.003 (35784/240412)

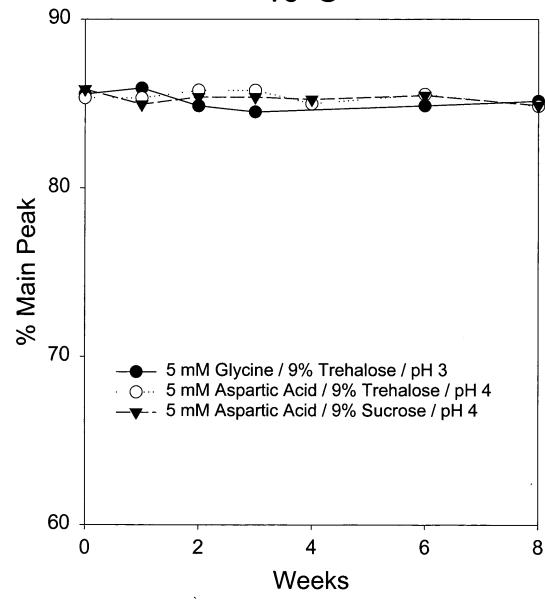
IFN-Beta-1b Lyophilized Formulations % of Initial Concentration UV Absorption 40°C



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Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA
In pr(s): Bret A. Shirley, Minna Choe, Melanie Teller, Babuka
Attion No: Not yet assigned
Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Lyophilized Formulations % Main Peak RP-HPLC 40°C



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Figure 13

Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA rentor(s): Bret A. Shirley, Minna Choe, Melanie To plication No: Not yet assigned
Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Lyophilized Formulations pH 3 & pH 4 % of Initial Concentration UV Spectroscopy

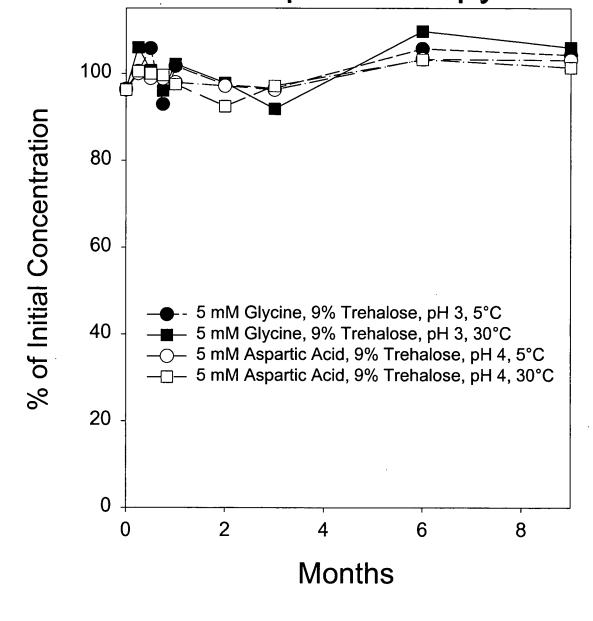


Figure 14

Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA sentor(s): Bret A. Shirley, Minna Choe, Melanie Te san Babuk blication No: Not yet assigned Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Lyophilized Formulations pH 3 & pH 4 % Main Peak RP-HPLC

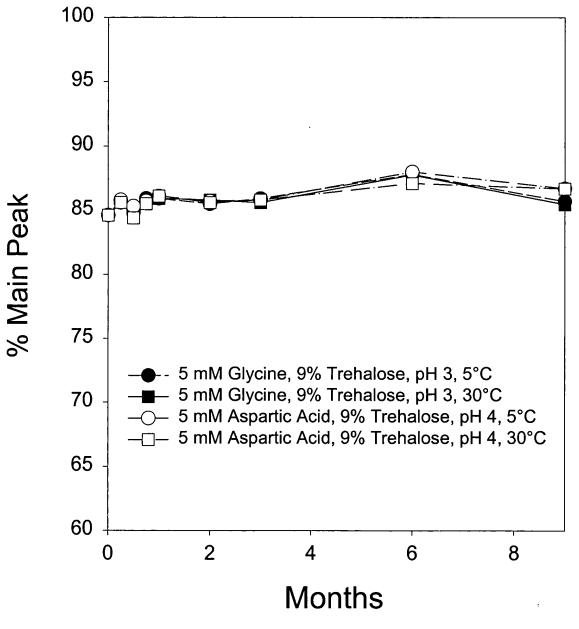
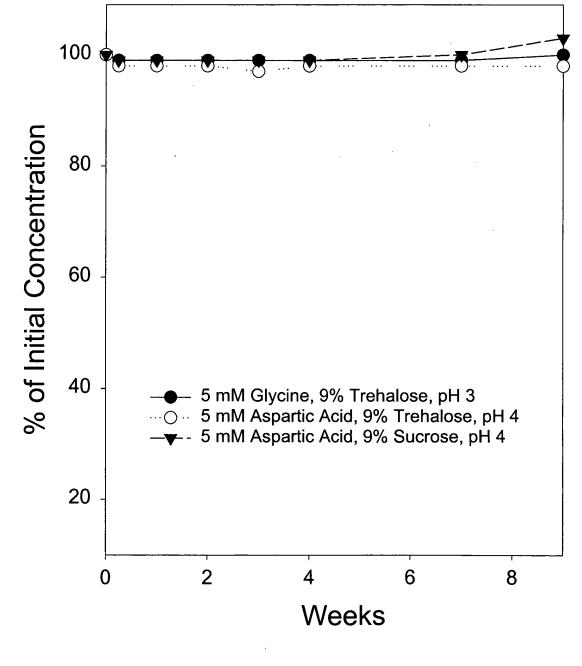


Figure 15

Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA eventor(s): Bret A. Shirley, Minna Choe, Melanie Topplication No: Not yet assigned
Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Liquid Formulations % of Initial Concentration UV Absorbance 30°C



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Figure 16

Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA an Babuka tor(s): Bret A. Shirley, Minna Choe, Melanie Tell an Babuka cation No: Not yet assigned Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Liquid Formulations % Main Peak RP-HPLC 30°C

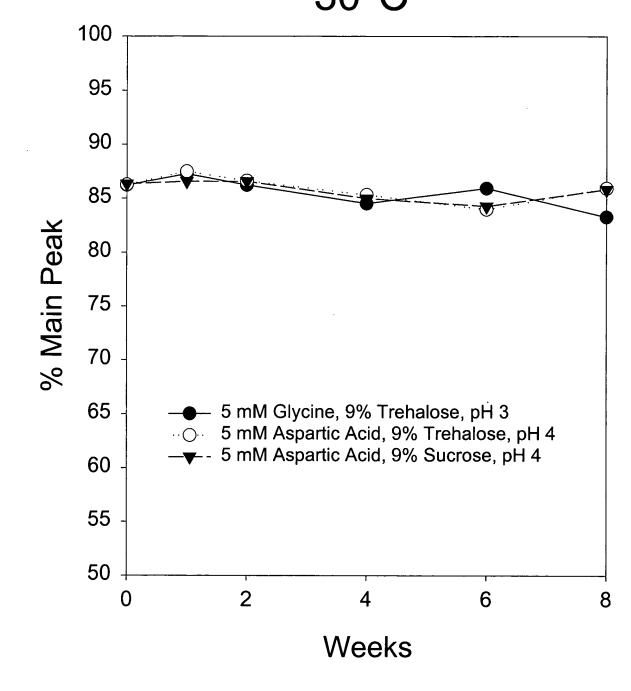


Figure 17

IFN-Beta-1b Liquid Formulations in Vials % of Initial Concentration UV Spectroscopy 5°C

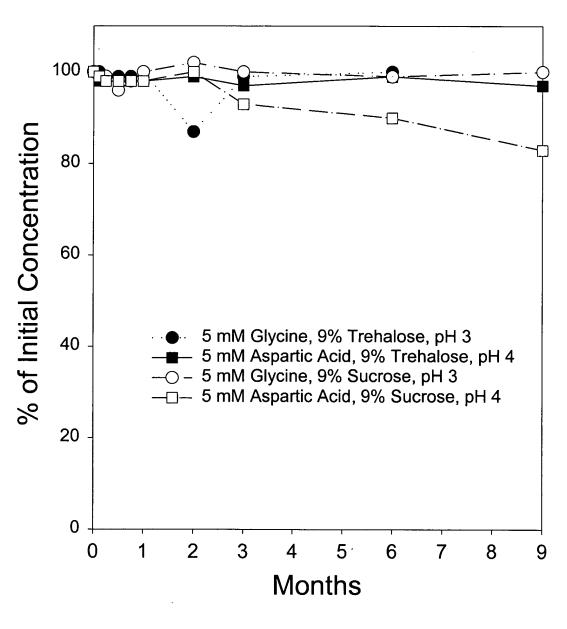
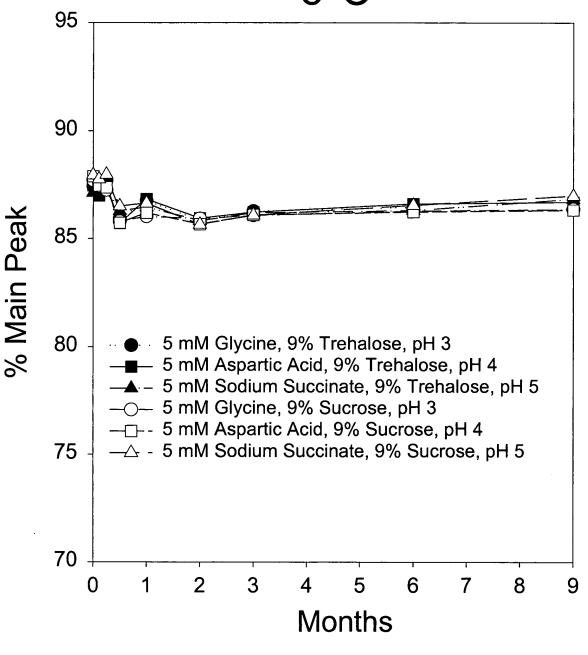


Figure 18

Title: HSA-FREE FORMULATIONS OF INTERFERON-BETA Inventor(s): Bret A. Shirley, Minna Choe, Melanic Type, Susan Babuka Application No: Not yet assigned Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Liquid Formulations in Vials % Main Peak RP-HPLC 5°C



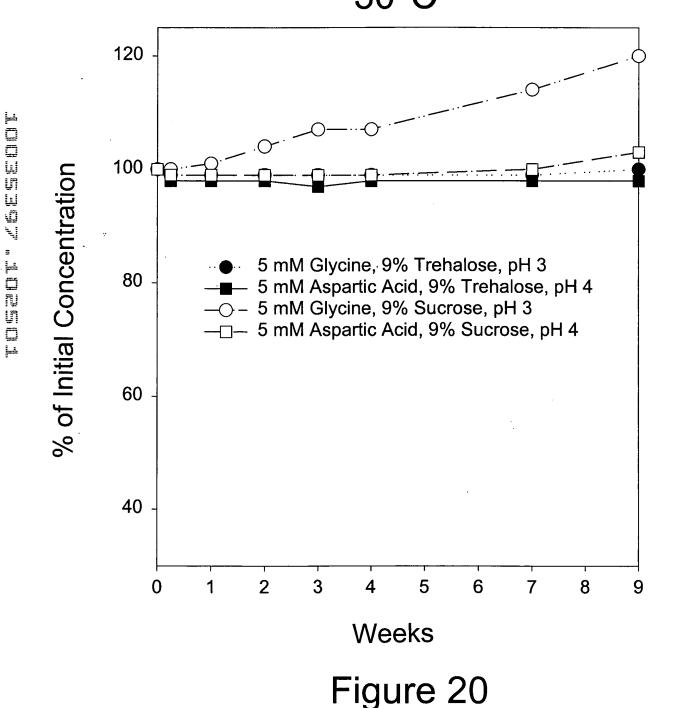
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Figure 19

Title: HSA-FREE FORMULATIONS OF INTERFORM-BETA
Inventor(s): Bret A. Shirley, Minna Choe, Melanidar, Susan Babuka
Application No: Not yet assigned

Atty Dkt No: PP17201.003 (35784/240412)

IFN-Beta-1b Liquid Formulations Containing Trehalose or Sucrose % of Initial Concentration UV Spectroscopy 30°C



Title: HSA-FREE FORMULATIONS OF INTERFERÖN-BETA Inventor(s): Bret A. Shirley, Minna Choe, Melanie Teller, Susan Babuka. Application No: Not yet assigned

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IFN-β-1b Lyophilized Formulations % of Initial Concentration Containing Trehalose or Sucrose pH 3 & 4 40°C

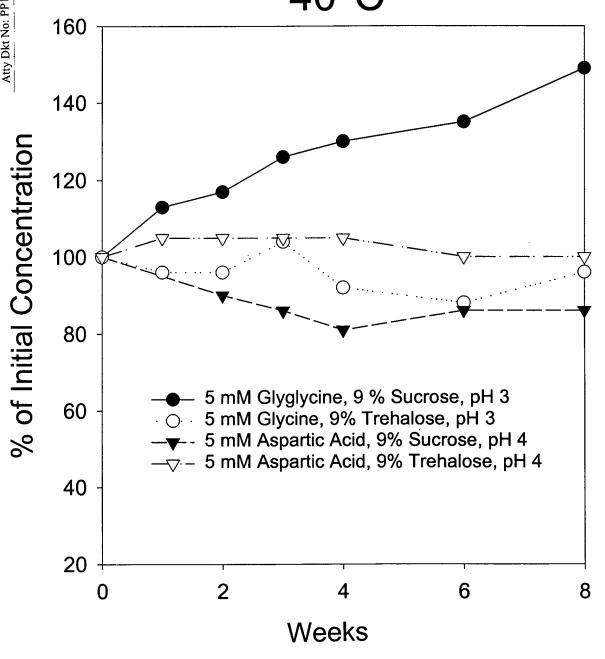
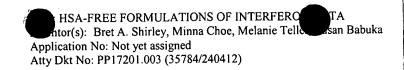
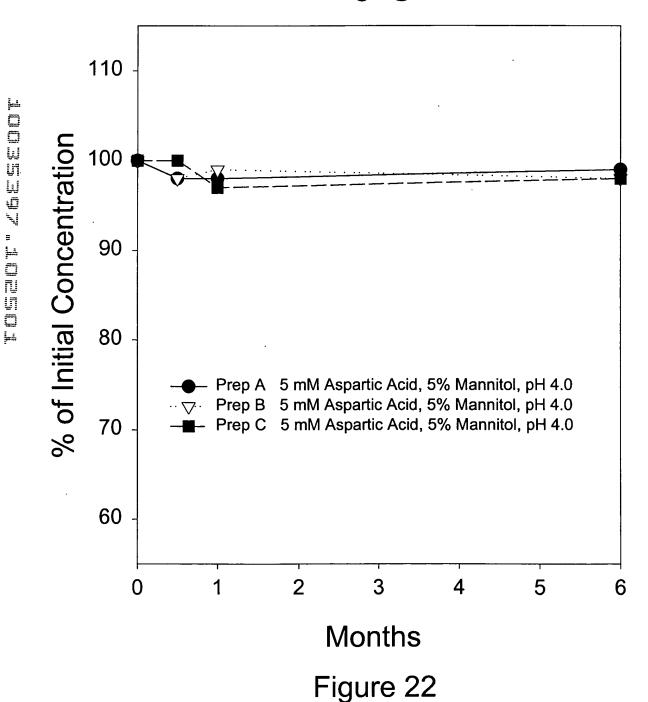


Figure 21



IFN-Beta-1b Liquid Formulations Containing Mannitol % of Initial Concentration UV Spectroscopy 5°C



IFN-Beta-1b Liquid Formulations Containing Mannitol % Main Peak RP-HPLC 5°C

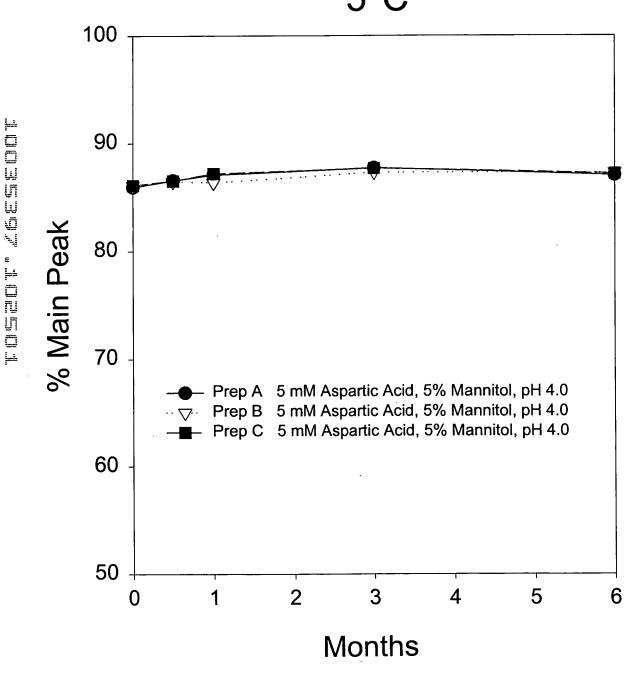


Figure 23